

CLAIMS:

1. A sub-field driven display device (10) having a sub-field converter (18) for converting video signals into sub-field data in which the sub-fields are weighted and duplicated for achieving a plurality of grey levels by way of a plurality of sub-fields, characterized in that the sub-field converter (18) is arranged to weight the sub-fields as a ternary distribution of sub-field weights.
2. A display device (10) as claimed in claim 1, wherein the sub-field converter (18) is arranged to employ symmetrical duplicated ternary weights.
3. A display device (10) as claimed in claim 1 or 2, wherein the sub-field converter (18) is arranged to distribute the ternary weights in a manner of increasing weighted value toward a central value or values.
4. A display device (10) as claimed in claim 1, 2 or 3, wherein the sub-field converter (18) is arranged to provide the highest sub-field weight at the centre of the ternary distribution.
5. A display device (10) as claimed in any one of claims 1 to 4, and including motion compensation means employing motion estimation serving to enhance motion artefact reduction.
6. A display device (10) as claimed in any one of claims 1 to 5, wherein the sub-field converter (18) is arranged to alternate light output control patterns in predetermined units of the display.
7. A display device (10) as claimed in claim 6, wherein the pattern comprises a checker-board pattern.

8. A method of driving a display device (10) by means of a plurality of weighted and duplicated sub-fields, characterized by the step of weighting the sub-field in accordance with a ternary distribution of weights.

5 9. A method as claimed in claim 8, and employing symmetrical duplicated ternary weights.

10. A method as claimed in claim 8 or 9, wherein the ternary weights are distributed in a manner of increasing weighted value toward a central value or values.

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11. A method as claimed in any one of claim 8, 9, or 10, wherein the highest sub-field weight is found in the centre of the ternary distribution.

12. A method as claimed in any one of claims 5 to 11, and including the step of
15 duplicated sub-field addressing.

13. A method as claimed in claim 12, and including motion compensation employing motion estimation serving to enhance motion artefact reduction.

20 14. A method as claimed in claim 12 or 13, and including the step of alternating light output control patterns in predetermined units of the display.

15. A method as claimed in claim 14, wherein the pattern comprises a checker board pattern.